



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

650.7712

Job Sheet 210662



Part No: 650.7712

Job Qty: 3 pcs

Part Name: Mechanical Cap



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/17/20

Job Tracking No:

Due Date: 7/10/20

Created By: Jennifer Renwick

Type: SOLD

Description:

Note: DWG. 650.7700 REV.PF1 NEW ISSUE 20/06/16 JFS VERIFIED BY:DD

Ship Via:

139 Valve

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	HAAS 5 Axis	3 pcs	7/3/20	7/3/20	0.75	7.50	HAAS - 1 - 5		JF 20-08-05
							HAAS - 2 - 5		
110	QC 2	3 pcs	7/3/20	7/3/20	0.00	0.00	QC 2 - 1		JF 20-08-05
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		
							QC 2 - 8		
							QC 2 - 66		
							QC 2 - 64		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S292140



Part: 650.7712

Job No: 210662

Serial No/Batch: S292140

Revision: REV.PF1

Inspector:

Exp Date:

Instructions:

Date: 08/05/20

Plex 6/17/20 8:16 AM Dart.Renwick.Jennifer

120	QC 8	3 pcs	7/3/20	0.00 0.00	QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
					QC 2 - 76	
					QC 2 - 86	
					QC 2 - 83	
					QC 8 - 12	
					QC 8 - 14	20/08/20
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
130	Outsource - 17 - Passivate	3 pcs	7/10/20	0.00 0.00	QC 8 - 49	
					QC 8 - 58	
140	Packaging 2-1 - Receive - B4B	3 pcs	7/10/20	0.00 0.00	QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 52	
					QC 8 - 23	
					QC 8 - 57	
					QC 8 - 76	
					QC 8 - 61	
					QC 8 - 66	
					QC 8 - 73	
					QC 8 - 82	
					GRO002-VC	5
					Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	

Plex 6/17/20 8:16 AM Dart.Renwick.Jennifer

				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
150 QC 6	3 pcs	7/10/20	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	DAS
				QC 6 - 40	82
				QC 6 - 81	9-89
				QC 6 - 82	SEP 08 2020
160 Packaging 3-1 - Stock - B4B	3 pcs	7/10/20	0.00 0.00	Packaging 3 - 1 - B4B	DAS
				Packaging 3 - 2 - B4B	82
				Packaging 3 - 3 - B4B	9-89
				Packaging 3 - 4 - B4B	SEP 08 2020
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
170 QC 21 - SA	3 pcs	7/10/20	0.00 0.00	QC 21 - SA - 21	DAS
				QC 21 - SA - 70	77
				QC 21 - SA - 9	9-89

Part Op 100 - 1-Machine as per folio FD314 FOLIO REV: AA DWG REV: PF1 2-Debur

Descriptions: 110 - QC2- Inspect parts off machine FAI/FAIB

120 - QC8- Inspect parts - second check

130 - -Issue P/O; HURSY PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required

140 - Certificate of Conformity is required

150 - QC6- All purchased or subcontracted products

160 - Identify as per dwg & Stock

170 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M303B1.500X2.500	M303B1.500X2.500	.6000 ft (.2 ea)	100-HAAS 5 Axis	

2.500X2.000

521 769
521 769
121 769 / 5006703

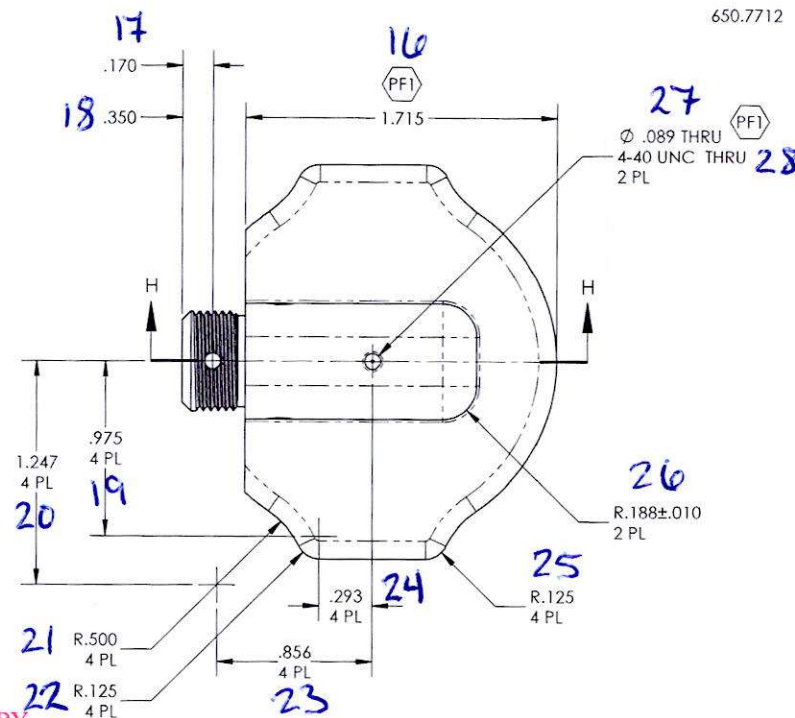
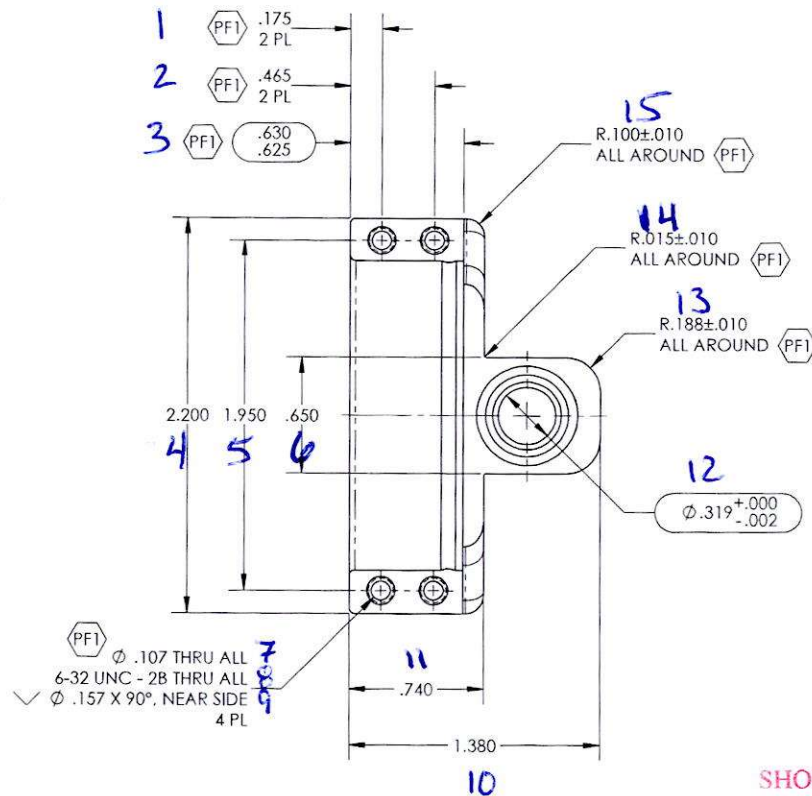
Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-HAAS 5 Axis	M303B1.500X2.500	1	0	0
Part Specifications				
Specifications could not be found.				

Plex 6/17/20 8:16 AM Dart.Renwick.Jennifer

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
AFICAL INDUSTRIES DSA DART AEROSPACE ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF DART AEROSPACE DSA AFICAL INDUSTRIES IS PROHIBITED.



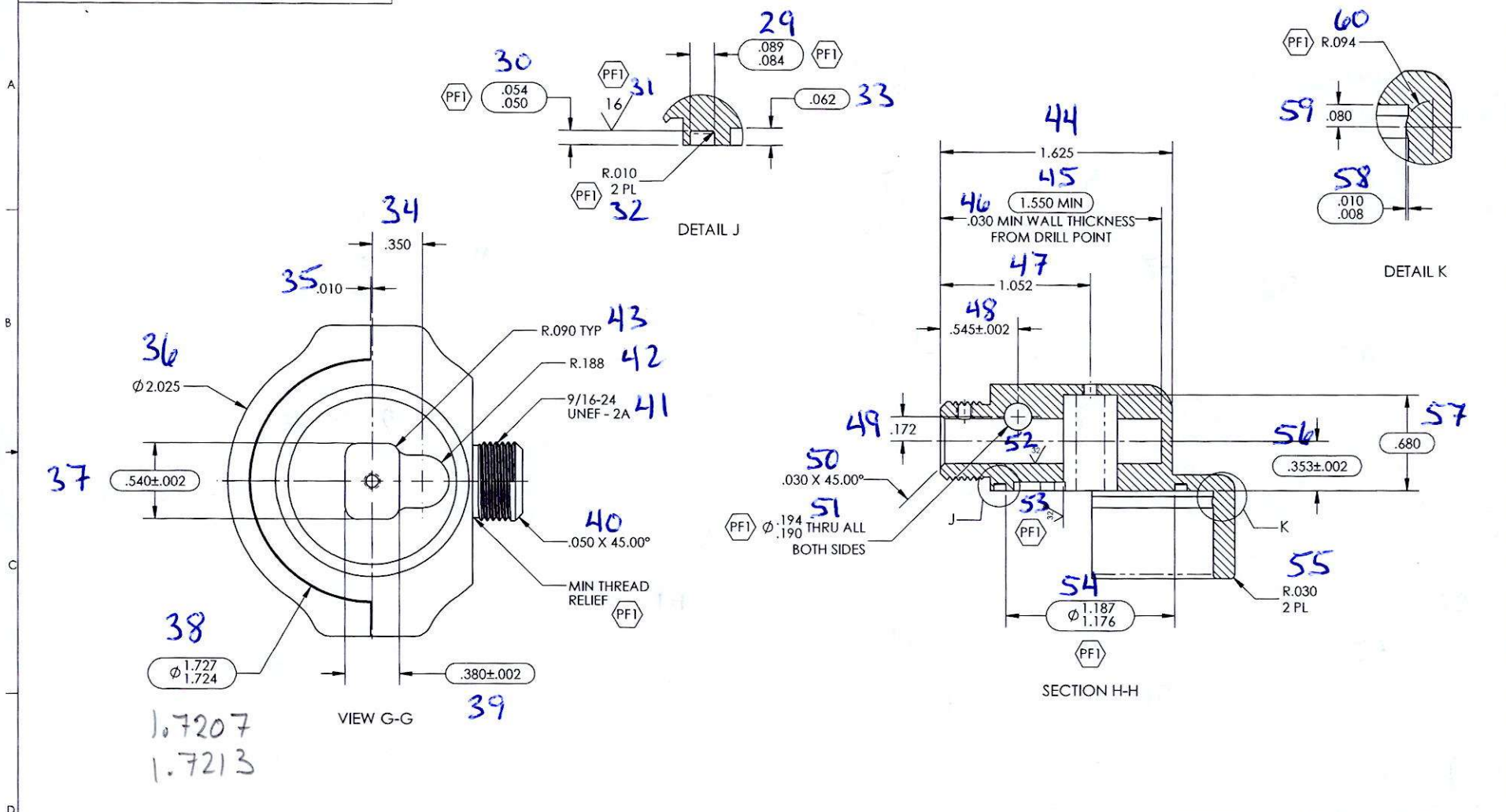
650.7712



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 210662

ORIGINAL DATE (MM-DD-YY)	04-25-2014	DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA, 92081 (760)-724-5300	
DRAWN BY	TOREY EVER		
IN CAP	P. BRAVO		
DRAWING APPROVAL	P. BRAVO		
DATE	04-25-2014		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.2°			
SHEET	07/126	DWG. NO.	650.7700
SCALE	NONE	REV.	PF1
		SHEET	3 OF 4

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE DBA APICAL INDUSTRIES IS PROHIBITED.

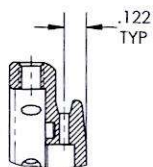


ORIGINAL DATE 04-25-2014		DART AEROSPACE		3030 ENTERPRISE CT.,	
DRAWN BY N. CAP		CHECKED P. BRAVO		VISTA, CA 92081	
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES, INC.		(760)-724-5300	
04-25-2014		DART AEROSPACE		CAP	
CONTRACT NO.		SEE		DWG. NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS $\pm .01$ 2 PLACE DECIMALS $\pm .005$ ANGLES $\pm 2^\circ$		B		650.7700	
		SCALE		NONE	
		SHEET		4 OF 4	

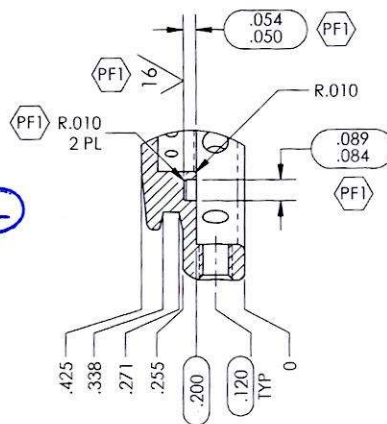
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
APICAL INDUSTRIES DBA DART AEROSPACE ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF DART AEROSPACE DBA APICAL INDUSTRIES IS PROHIBITED.

NOTES:

- 1 MATERIAL: 303 SS IAW AMS-5640 (61)
2. DEBURR AND BREAK ALL SHARP EDGES
3. IDENTIFY IAW MPP-120
4. FINISH $\checkmark$ MAXIMUM UNLESS OTHERWISE SPECIFIED
5. FINISH: IAW MPP-172 PASSIVATE IAW SECTION 6. (62)

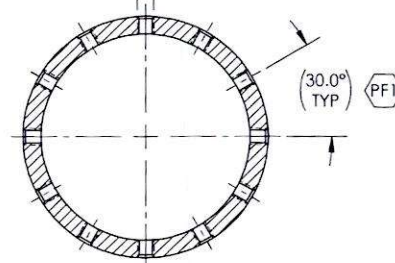


SECTION L-L (PF1)



DETAIL D

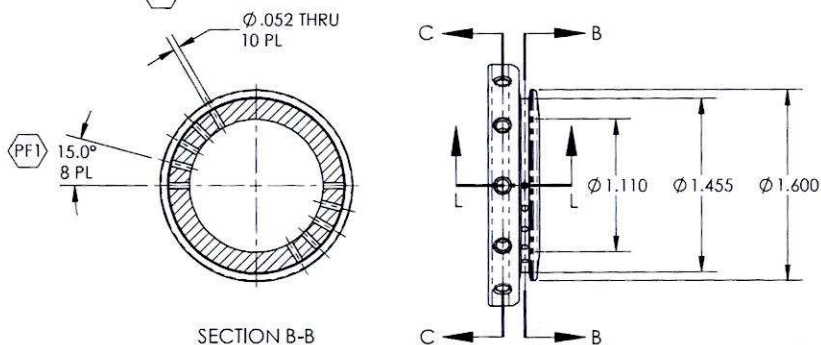
ϕ .107 THRU
6-32 UNC - 2B THRU
 $\checkmark$ ϕ .150 X 90°, NEAR SIDE
12 PL EQLSP
(PF1)



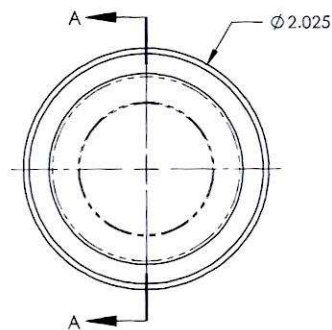
SECTION C-C



650.7710



SECTION B-B



SECTION A-A



DETAIL E

PROTOTYPE REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A1-1		REMOVED ELECTROPOLISH FINISH		
A3-1		ADDED R.010 2 PL AND SURFACE ROUGHNESS VALUE		
A4-1		MODIFIED ORRIB GROOVE DIMENSIONS		
A5-1		ADDED 12 PL EQLSP		
A7-1		DIMENSION WAS 30.0° 12 PL IS (30.0° TYP)		
B1-1		ADDED SECTION L-L		
C1-1		DIMENSION COUNT WAS 10 PL IS 8 PL		
C8-1		DIMENSION WAS ϕ 1.176-1.181 IS ϕ 1.176-1.187		
A7-2		DIMENSION WAS .620 IS .615-.620		
D6-2		DIMENSION WAS R.100 IS R.094		
A2-3		ADDED 2 PL TO .465 AND .175 DIMENSIONS		
B2-3		DIMENSION WAS .625 IS .625-.630		
B4-3		ADDED ALL AROUND TO RA DIMENSIONS		
B7-3		ADDED MISSING DIMENSION		
B9-3		ADDED ϕ .089 THRU		
C1-3		ADDED ϕ .107 THRU ALL		
A3-4		DIMENSION WAS .062+.001 B. .090+.054		
A4-4		ADDED R.010 2 PL DIMENSION		
A4-4		ADDED SURFACE ROUGHNESS VALUE		
A5-4		DIMENSION WAS .075-.080 IS R.094		
A7-4		DIMENSION WAS R.100 IS R.094		
C4-4		ADDED MINI THREAD RELIEF CALLOUT		
C5-4		ADDED MISSING HOLE DIMENSION		
C6-4		ADDED ALL AROUND MODIFIER TO SURFACE ROUGHNESS CALLOUT		
C9-4		DIMENSION WAS ϕ 1.176-1.181 IS ϕ 1.176-1.187		

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
N/C	INITIAL RELEASE	04-29-2014	P. BRAVO
A	INCORPORATED ECH 04544	05-29-2014	P. BRAVO
B	INCORPORATED ECH 05013	07-13-2015	P. BRAVO
C	INCORPORATED ECH 05084	08-13-2015	P. BRAVO
D	INCORPORATED ECH 05125	09-01-2015	P. BRAVO
E	INCORPORATED ECH 05312	10-11-2016	P. BRAVO
F	INCORPORATED ECH 05833	08-19-2017	P. BRAVO

	3	650.7712	MECHANICAL CAP	△	△
	2	650.7711	CAP RETAINER	△	△
	1	650.7710	ELECTRIC CAP	△	△
QTY	PART NO.	DESCRIPTION	MATL	SPEC	
PARTS LIST					
NEXT ASSY (S)			 DART 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-6300 AEROSPACE AEROSPACE INDUSTRIES INC. 0429 DART AEROSPACE		
650.5300					
ORIGINAL DATE 04-29-2014					
DRAWN BY N. CAP					
CHECKED P. BRAVO					
DRAWING APPROVAL P. BRAVO			CAP SHEET 1 OF 4		
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED					
DIMENSIONS ARE IN INCHES					
TOLERANCES ARE:					
3 PLACE DECIMALS .001			REV		
1 PLACE DECIMALS .005			PF1		
ANGLES .2°					

DART AEROSPACE LTD		Work Order: 210.462
Description: Mechanical Cap		Part Number: 650.7712
Inspection Dwg: 650.7700 Rev: PF1		Page 1 of 1

INSPECTION SHEET

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1	.175	+/- .005	.174	✓		SLIO	Vern
2	.465	+/- .005	.466	✓			
3	.630	+ .000 / - .005	.625	✓			
4	2.200	+/- .005	2.201	✓			
5	1.950	+/- .005	1.951	✓			
6	.650	+/- .005	.650	✓			
7	Ø .107	+ .004 / - .001	.108	✓			
8	6-32 UNC-2B		6-32 2B	✓			
9	Ø .157 x 90°	+/- .005 / - .001	.162 x 90°	✓			Thread gauge
10	1.380	+/- .005	1.381	✓			
11	.740	+/- .005	.742	✓			
12	Ø .319	+ .000 / - .002	.319	✓			
13	R.188	+/- .010	.188	✓			
14	R.015	+/- .010	.020	✓			
15	R.100	+/- .010	.100	✓			
16	1.715	+/- .005	1.712	✓			
17	.170	+/- .005	.169	✓			
18	.350	+/- .005	.347	✓			
19	.975	+/- .005	.973	✓			
20	1.247	+/- .005	1.247	✓			
21	R.500	+/- .005	.500	✓			
22	R.125	+/- .005	.125	✓		Rad gauge	
23	.856	+/- .005	.856	✓		"	
24	.293	+/- .005	.293	✓		C.M.M.	
25	R.125	+/- .005	.125	✓		"	
26	R.188	+/- .010	.188	✓		Rad gauge	
27	Ø .089	+ .004 / - .001	.0885	✓		SLIO	Vern
28	4-40 UNC		4-40	✓		Thread gauge	
29	.089	+ .000 / - .005	.086	✓		gauge	PIN
30	.054	+ .000 / - .004	.054	✓		SLIO	Vern
31	✓		8 RA	✓		Surface Ruffness tester	
32	R.010	+/- .005	.005	✓		Rad gauge	

Measured by: 20	Checked by: ml	QC Inspector: 82
Date: 20-07-25	Date: 20/08/20	Date: SEP 04 2020

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

DART AEROSPACE LTD		Work Order: 210 6662
Description: Mechanical cap		Part Number: 650.7712
Inspection Dwg: 650.7700 Rev: PF1		Page 1 of 1

INSPECTION SHEET

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
33	.062	+/- .005	.067	✓		SL10	Vein
34	.350	+/- .005	.350	✓		31006	H-G
35	.010	+/- .005	.010	✓		"	
36	Ø 2.025	+/- .005	2.025	✓		C.M.M	
37	.540	+/- .002	.542	✓		896032	Mic
38	Ø 1.727	+ .000 / - .003	Ø 1.724	✓		C.M.M	
39	.380	+/- .002	.382	✓		896032	Mic
40	.050 X 45°	+/- .005 X +/- 2°	.045	✓		SL10	Vein
41	9/16-24 UNEF-2A	—	9/16-24	✓		Thread gauge	
42	R.188	+/- .005	.188	✓		Rad gauge	
43	R.090	+/- .005	.090	✓		"	
44	1.625	+/- .005	1.626	✓		SL10	Vein
45	1.550	+/- .005	1.553	✓		"	
46	.030 Min	+/- .005	.036	✓		896012	Depth gauge
47	1.052	+/- .005	1.055	✓		31006	H-G
48	.545	+/- .005	.5455	✓		"	
49	.172	+/- .005	.172	✓		"	
50	.030 X 45°	+/- .005 X +/- 2°	.028 X 45°	✓		SL10	Vein
51	Ø .194	+ .000 / - .004	.191	✓		gauge	Pin
52	✓	—	8.2 R4	✓		Surface	roughness tester
53	✓	—	28.9 R4	✓		"	
54	Ø 1.187	+ .000 / - .011	1.178	✓		SL10	Vein
55	R.030	+/- .005	.030	✓		Rad gauge	
56	.353	+/- .002	.355	✓		31006	H-G
57	.680	+/- .005	.680	✓			
58	.008	+ .002 / - .000	.008	✓			
59	.080	+/- .005	.080	✓			
60	R.094	+/- .005	.094	✓			
61	303 STEEL		AMS-S440	✓		MILL TEST	HIT E230708
62	AMS-5640						
	PASSINATED			✓		COFC	ALTECH
		DAS				POMBOY	6954

DAS
82
9-89

Measured by: 20 9-89	Checked by: MK	QC Inspector:
Date: 20-07-25	Date: 20/08/20	Date: SEP 08 2020

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046954



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB046954

PO Date: 8/25/20

Due Date: 9/2/20

Purchase Order

Revision:

Revision Date:

Issued By: Guerin, Kimberley
Phone: 613-632-5200 Ext. 298
kguerin@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	212077	650.9610	650.9600 REV-PB2	Electric Valve Body -Issue P/O; _____ PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X6	-	9/2/20	6 pcs	0 pcs	6 pcs	\$0.35/pcs	\$2.10
									AUG 31 2020			
2	210876	651.0101	651.0100 REV.PE2	Angled Gauge Adapter -Issue P/O; _____ PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 316 stainless steel -Certificate of Conformity is required	Firmed X3	-	9/2/20	3 pcs	0 pcs	3 pcs	\$0.35/pcs	\$1.05
									AUG 31 2020			
3	210662	650.7712	650.7700 REV.PF1	Mechanical Cap -Issue P/O; _____ PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X3	-	9/2/20	3 pcs	0 pcs	3 pcs	\$0.35/pcs	\$1.05
			DAS 82 9-89						AUG 31 2020			
4	211175	650.7810	650.7800 REV.PA1	Pull Rod -Issue P/O; _____ PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X3	-	9/2/20	3 pcs	0 pcs	3 pcs	\$0.35/pcs	\$1.05
									AUG 31 2020			



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046954



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	212002	654.6411	654.6400 REV-PR2	Plug Fitting -Issue P/O: _____ PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed XS	-	9/2/20	5 pcs	0 pcs	5 pcs	\$0.35/pcs	\$1.75
										AUG 31 2020		
6	212001	654.6412	654.6400 REV-PR2	Fill Piston Fitting -Issue P/O: _____ PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed XS	-	9/2/20	5 pcs	0 pcs	5 pcs	\$0.35/pcs	\$1.75
										AUG 31 2020		
7	211954	647.2511	647.2500 Rev A	Nut : Various STC's Issue P/O: _____ Pasivate as per MIL-S-5002 TYPE 6 Certificate of conformaty is required	Firmed X36	-	9/2/20	36 pcs	0 pcs	36 pcs	\$2.45/pcs	\$88.20
										AUG 31 2020		
8	211953	647.2510	647.2500 Rev A	Sleeve : Various STC's Issue P/O: _____ Pasivate as per MIL-S-5002 TYPE 6 Certificate of conformaty is required	Firmed X36	-	9/2/20	36 pcs	0 pcs	36 pcs	\$0.88/pcs	\$31.68
										AUG 31 2020		
Grand Total:											\$128.63	

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retension of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 8/28/20 4:16 PM Dart.Guerin.Kimberley



Certificat de Conformité / Certificate of Compliance



0 3 0 5 5 4 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

030554 - 1

Livré à / Ship to

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA

Tel.: 613-632-5200 Fax:.

Client / Customer:

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA

BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.					
28-Aug-2020		Ian Wilson		POHB046954					
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	Quantités / Quantities	
Job # / Ref #								À venir/ Back Order	
1	650.9610 Rev.	650.9610 01 -PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST PASSIVATE IAW QQ-P-35C MATERIAL TYPE: 303 STAINLESS STEEL	PASSIVATION CH	6	6	0	0	0	
2	651.0101 Rev.	651.0101 01 -PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST PASSIVATE IAW QQ-P-35C, TYPE II MATERIAL TYPE: 316 STAINLESS STEEL	PASSIVATION CH	3	3	0	0	0	
3	650.7712 Rev.	650.7712 01 -PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] PASSIVATE IAW QQ-P-35C, TYPE II MATERIAL TYPE: 303 STAINLESS STEEL	PASSIVATION CH	3	3	0	0	0	
4	650.7810 Rev.	650.7810 01 -PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] PASSIVATE IAW QQ-P-35C, TYPE II MATERIAL TYPE: 303 STAINLESS STEEL	PASSIVATION CH	3	3	0	0	0	
5	654.6411 Rev.	654.6411 01 -PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] PASSIVATE IAW QQ-P-35C, TYPE II MATERIAL TYPE: 303 STAINLESS STEEL	PASSIVATION CH	5	5	0	0	0	
6	654.6412 Rev.	654.6412 01 -PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] PASSIVATE IAW QC-P35C, TYPE II MATERIAL TYPE 303 STAINLESS STEEL	PASSIVATION CH	5	5	0	0	0	
7	647.2511 Rev.	647.2511 01 -PASSIVATION DICHROMATE [PASSIVATION DICHROMATE] PASSIVATE AS PER MIL-S-5002 TYPE 6	PASSIVATION CH	36	36	0	0	0	
8	647.2510 Rev.	647.2510 01 -PASSIVATION DICHROMATE [PASSIVATION DICHROMATE] PASSIVATE AS PER MIL-S-5002 TYPE 6	PASSIVATION CH	36	36	0	0	0	

RECEIVED

AUG 28 2020

DART AEROSPACE LTD.

0 3 0 5 5 4 - 1

030554 - 1

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
BUYER:

DART AEROSPACE LTD.

Page 2 of 2

942749 - PO# P01581

54-150001

2

MONTANSTAHL

special profiles in steel

Tel.: +41 (91) 6416-800
Fax.: +41 (91) 6416-804
email: info@montanstahl.com

007576

mill test certificate

MONTANSTAHL AG, Via Gerretle 4, CH-6855 Stabio	
Company	
STAINLESS STRUCTURALS LLC	
590 Beautyrest Avenue	
USA 32254 JACKSONVILLE	

product Flat - ACD 2 x 2.5 inch 11'-13'																																	
mill test certificate according to	order n° 1857																																
Customer specs	(38762, 37746)																																
size standards PT 111	net weight 4021 lbs																																
grade 303	execution AGD																																
grade standards ASTMA582/A582M A582 type 1	marking EAF/AOD																																
bundles 942749, 943009, 943010, 943011																																	
<table border="1"> <tr> <th>heat</th> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Ni</th> <th>Cr</th> <th>Mo</th> <th>Ti</th> <th>Al</th> <th>N</th> <th>Cu</th> <th>Pb</th> <th>V</th> <th>Co</th> </tr> <tr> <td>E230708</td> <td>0.055</td> <td>0.58</td> <td>1.78</td> <td>0.029</td> <td>0.268</td> <td>8.60</td> <td>17.62</td> <td>0.27</td> <td></td> <td></td> <td>0.014</td> <td>0.59</td> <td></td> <td></td> <td>0.10</td> </tr> </table>		heat	C	Si	Mn	P	S	Ni	Cr	Mo	Ti	Al	N	Cu	Pb	V	Co	E230708	0.055	0.58	1.78	0.029	0.268	8.60	17.62	0.27			0.014	0.59			0.10
heat	C	Si	Mn	P	S	Ni	Cr	Mo	Ti	Al	N	Cu	Pb	V	Co																		
E230708	0.055	0.58	1.78	0.029	0.268	8.60	17.62	0.27			0.014	0.59			0.10																		
<table border="1"> <tr> <th rowspan="2">tensile strength</th> <th colspan="2">yield strength</th> <th rowspan="2">elongation A5</th> <th rowspan="2">area reduction Z</th> <th rowspan="2">hardness HB</th> <th rowspan="2">impact test KV</th> </tr> <tr> <th>Rm</th> <th>Re 0.2%</th> </tr> <tr> <td>93 kN</td> <td>63 kN</td> <td>61 kN</td> <td>50 %</td> <td>65 %</td> <td></td> <td></td> </tr> </table>		tensile strength	yield strength		elongation A5	area reduction Z	hardness HB	impact test KV	Rm	Re 0.2%	93 kN	63 kN	61 kN	50 %	65 %																		
tensile strength	yield strength		elongation A5	area reduction Z					hardness HB	impact test KV																							
	Rm	Re 0.2%																															
93 kN	63 kN	61 kN	50 %	65 %																													

- We hereby confirm that the material certified in this document is conform to enclosed data sheet

- Material is produced in compliance with ROHS (2002/95/EC)
- Material free from Mercury and radioactive contamination

- Country of melt: Germany
- Country of manufacturing origin: Switzerland

This report is a copy of original mill certificate and verifies that the product meets the requirements as originally ordered by Energy Steel Products.

DATE: 12/05/17 VERIFIED: [Signature]

Trade Mark



date

04.10.2011

The works' inspector

Luca Cattaneo

[Signature]

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401840220

Part: PO: PEC-239000

Wgt: 67.920 LB Date: 05/03/2012

James K Baber

Purchase Order Receipt Listing

Page 1 of 1

Wednesday, May 16, 2012 7:38:09 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO16883 Receipt Dates from 5/16/2012 to 5/16/2012 All Line Item Types
All Item ID/GL/WOs All Rec. Employees All Currencies
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vendor Name VC-COP001 Thyssenkrupp Materials CA Ltd											
PO16883	1		M174B1.250X02.000 f		5/9/2012	5/16/2012	12.1100 13	\$35.68	0.0000	0	\$432.09
CAD	No		17-4 SS Bar 1.250 x f		12.0000	DESJ02		\$432.09	0.0000	0	
			2.00								
	2		M303B2.500X2.000 f		5/9/2012	5/16/2012	4.0000	\$84.77	0.0000	0	\$339.09
	No		303 BAR 2.5" X 2" f		4.0000	DESJ02		\$339.09	0.0000	0	
			121769								
	12		M7075T73B2.500X0 f		5/9/2012	5/16/2012	4.0000	\$67.06	0.0000	0	\$268.23
	No		3.25		4.0000	DESJ02		\$268.23	0.0000	0	
			7075-T73 Bar 2.50 x f								
			3.25								
			121769								

Total Received Quantity: 20.1100

Total Qty to Inspect (PO U/M): 0.0000

Total Reject Quantity: 0.0000

Total Receipt Value: \$1,039.40

Total Balance Due Quantity: 0.0000

B I L L O F L A D I N G

No: PEC 767137

Ship From:
 THYSSENKRUPP MATERIALS NA
 2821 LANGSTAFF ROAD
 CONCORD, ONTARIO L4K 5C6
 Tel: 905 669 9444 Fax: 9057389033

Ship Date 14May12 at 13:23 From PFW
 Probill
 Via VIM TRANSFER
 FOB CONCORD
 Frt PREPAID
 Route 0- 0 Manifest
 Vhcle Trailer
 Slp STAN IVERS (905-532-1350)
 Sold To: (20115)
 DART AEROSPACE
 1270 ABERDEEN ST
 HAWKESBURY, ON K6A 1K7

Ship To: (1)
 DART AEROSPACE
 1270 ABERDEEN ST
 HAWKESBURY, ON K6A 1K7
 Tel: 613-632-9577 Fax: 613-632-1053

B I L L O F L A D I N G

1) Our Order PEC-447140- 1 Your PO # 16883
 STAINLESS STEEL FLAT BAR 17-4 HRAP
 1.25 X 2.00 X 155.000"

MTR

Heat Number	Tag No	Quantity	PCS	Wt LBS
254026	66508	12	11.0000 "	111

2) Our Order PEC-447140- 2 Your PO # 16883
 STAINLESS STEEL FLAT BAR 303 CD
 2.00 X 2.50 X 48.000"

MTR

Heat Number	Tag No	Quantity	PCS	Wt LBS
E230708	66510	4 FT	1	68

3) Our Order PEC-447140- 3 Your PO # 16883
 ALUMINUM PLATE 7075T7351
 2.50" THICK X 3.2500" X 48.0000"

Heat Number	Tag No	Quantity	PCS	Wt LBS
149791	66512	1.08 SFT	1	41

Tags	PCS	LBS
3	3	220

TOTAL:

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH
 MATERIAL AND FAXED TO THE CUSTOMER PRIOR
 TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **

** REFERENCED ON IT **

TOTAL 2 BARS, 1 PKG G.W 221 LBS

Page: 1Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
 RAPPORTÉES IMMÉDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

Man Brunet May 16/2012

DATE

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION
 TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

DATA SHEET FOR ACD STAINLESS STEEL FLAT BARS IN GRADES 303, 304 / 304L AND 316 / 316L

Applicable standards	Rev.	Grades		
		ASTM A320 UNS S30300	ASTM A304/A304L UNS S30400 UNS S30403	ASTM A316/A316L UNS S31600 UNS S31603
ASTM	A320/A320M	2003	X	X
	A484/A484M	2003a	X	X
	A582/A582M	1995b	X	X
	A276	2004	X	X
	A370-03a	2003	X	X
	A479/A479M	2004	X	X
AMS	5640T (type 1)	2003	X	
	2241N	2003	X	
	5653F	2002		X
	5648K	2002		X
	S 7720 A	1997		X
	5639H (type 1)	2002	X	
	5647H	2002	X	
	2248E	1993	X	X
	QQ S 763A	2003	X	X
ASME	SA479 + S2.1	1998	X	X

Chemical values

Grade	C ⁽¹⁾	S ⁽¹⁾	Mn	Ni	Cr	Mo	S ⁽²⁾	P ⁽¹⁾	Si ⁽¹⁾	Cu ⁽¹⁾	Co ⁽¹⁾	Al ⁽¹⁾
303	0,15	1	2 ⁽¹⁾	8-10	17-19	0,6 ⁽¹⁾	0,35 ⁽²⁾	0,15	0,1	0,75	0,1	0,60
304/304L	0,03	0,75	2 ⁽¹⁾	8-10,5	18-20	0,5 ⁽¹⁾	0,03	0,04	0,1	0,50	0,1	
316/316L	0,03	0,75	1-2	10-14	16-18	2-3	0,03	0,04	0,1	0,75	0,1	

⁽¹⁾ Maximum values

⁽²⁾ For thicknesses ≤ 0.25": S_{min} = 0.20

Mechanical values^{(A) (B)}

Grade	Thickness	TS ⁽¹⁾ [N/mm²]	YS ⁽¹⁾ [N/mm²]	EL ⁽¹⁾ [%]	RA ⁽¹⁾ [%]	HB ⁽¹⁾
303	Up to 0.5"	75	30	30	40	140-241
	Over 0.5"	75	30	35	50	223
304/304L	Up to 0.5"	90	45	30	40	140-223
	Over 0.5"	75	30	40	50	140-223
316/316L	Up to 0.5"	90	45	30	40	140-223
	Over 0.5"	75	30	30	40	140-223

⁽¹⁾ Maximum values; hardness is measured in centerline of width after removal of specific surface layer (see ASTM A320)

⁽²⁾ Minimum values

^(A) Cold drawn flat bars are not intentionally strain hardened but drawn to specific dimensional tolerances.

^(B) Cold drawn flat bars have a higher magnetic permeability than HRAP flat bars.

- Solution annealed at 1050°C and water quenched
- Intergranular corrosion test according to ASTM A262 practices A, C & E (where applicable)
- Micro and macro structure: OK
- Grain size per ASTM E112: 5-7
- No welding or weld repairs
- Material free of contamination from mercury or metals liquid at ambient temperature

GG 31/08/2004 SPECIFICA DI VENDITA

\\mcrur\data\documenti\gq\specifiche\vendita\en_piatti\trallat\inox-usa_pt111.doc

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401840220

Part: PO: PEC-239000

Wgt: 67.920 LB Date: 05/03/2012

James K. Baber